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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,461	11/20/2001	Henry Cholod	VRO-005.01	8659

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EXAMINER	
RIVELL, JOHN A	

ART UNIT	PAPER NUMBER
3753	

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/988,461	CHOLOD, HENRY	
	Examiner	Art Unit	
	John Rivell	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/22/03 (amendment)*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Applicant's arguments filed September 22, 2003 have been fully considered but they are not persuasive.

Claims 1-22 remain pending.

Drawings

The drawings are objected to as set forth on the Draftsperson's Review PTO-948 attached to paper no. 3. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8 and 10-21 are rejected under 35 U.S.C. §102 (b) as being anticipated by Holicer. The patent to Holicer discloses in figure 5 (see also the attached "exploded view thereof) and at column 6, lines 29-71 "a pressure relief valve comprising: a housing (shown generally at 1) having a passage (from conduit 16, through channel 53a, branch 53 to an outlet at 60) formed therein for connection (53a) with a fluid source (at 16) and a seal surface (seat 57) positioned about an opening (53a) in the passage, the housing

including a discharge opening (60) for relieving pressurized fluid from the housing during operation of the relief valve; a valve member (54) positioned within the housing, the valve member being movable along an axis within the housing (at branch 53) to selectively engage the seal surface in a sealing relationship, the housing being sized and shaped to substantially restrict movement of the valve member (54) to a direction parallel to the axis; and a spring (58) coupled to the valve member and a portion of the housing, the spring (58) applying a spring force to the valve member (54) to bias the valve member (54) into contact with the seal surface (57), wherein the valve member (54) separates from the seal surface (57) upon application of a fluid pressure force on the valve member that is greater than the spring force thereby allowing pressurized fluid to pass through the discharge opening (60) in the housing" as claimed in claim 1.

Regarding claim 2, Holicer discloses that "the valve member has one or more through-holes (55) formed therein" as claimed.

Regarding claim 3, Holicer discloses that "the one or more through-holes are arranged on the valve member (54) to inhibit fluid flow through the through-holes when the valve member is sealing(ly) engaged with the seal surface" as claimed.

Regarding claim 4, Holicer discloses that "the seal surface (57) is generally annular in shape" as claimed.

Regarding claim 5, Holicer discloses that "the valve member (54) is disk-shaped having a generally circular bottom surface for engaging the seal surface" as claimed.

Regarding claim 6, Holicer discloses that "the holes (55) are arranged in a circular pattern (such as at the six o'clock and twelve o'clock position as illustrated) about the circumference of the bottom surface" as claimed.

Regarding claim 7, Holicer discloses that "the through-holes (55) are uniformly spaced about the valve member(54)" as claimed.

Regarding claim 8, Holicer discloses that "the through-holes (55) are commonly sized and shaped" as claimed.

Regarding claim 10, Holicer discloses that "the valve member (54) includes a spring recess (not numbered but clearly shown in the right side of the valve member 54) sized to receive at least an end of the spring" as claimed.

Regarding claim 11, Holicer discloses that "the spring recess (in the valve member) is centered on the axis of motion of the valve member (54)" as claimed.

Regarding claim 12, Holicer discloses that "the housing includes a second spring recess (within the retaining plug 59) sized to receive another end of the spring, the second spring recess being aligned with the spring recess in the valve member" as claimed.

Regarding claims 13-20, the limitations recited therein are merely repeated from the above claims and their anticipation by the reference is considered apparent.

Regarding claim 21, Holicer discloses that "the pattern of through-holes (55) is circular in shape, and a diameter of the pattern is greater than the width of the opening (53a) in the passage" as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 9 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Holicer in view of Wahli et al. (German document No. 1947093). The patent to Holicer discloses all the claimed features, as noted above, with the exception of having "an annular groove formed in the seal surface receiving an elastomeric seal ring" (claim 9) and "a base having a passage... a housing cover having a cylindrical cavity formed therein, the cover engaging the base and enclosing the seal surface within the cavity) (claim 22). The document to Wahli et al., in figure 2 specifically, discloses that it is known in the art to employ a "base" (2) having a passage (at 13) therein, which "base" includes an "annular groove" 7 receiving an "elastomeric ring" 8 forming the seal surface (for claim 9) for the valve head 5 to seat upon to sealingly close the valve, and a "housing cover" at 1 defining a cavity therein and "enclosing the seal surface within the cavity" (claim 22) for the purpose of fluid tightly sealing the head and seat contact surface and to form a cavity within an attached "cover which cavity receives and encloses the valve elements therein. The differences here between Holicer and Wahli et al. are considered to be full functional equivalents of each other and represent mere alternative arrangements of seals (on the head of Holicer versus the seat of Wahli et al.) and valve housing construction (valve enclosed by the "base" and closed off by a "cover" 59 in Holicer versus a "base" 2 and valve 5 enclosed by a "cover" 1 of Wahli et al.) It would have been obvious at the time the invention was made to a person having ordinary skill in the art to employ in Holicer an annular groove receiving an elastomeric

seal ring therein in the seat surface 57 and to employ a "housing cover" attached to the "base" and enclosing the valve elements within a cavity therein for the purpose of fluidly sealing the head and seat contact surfaces and to provide a housing for the valve as recognized by Wahli et al.

Response to Arguments

The argument that "Claims 1, 13 and 22 of the present application recite pressure relief valves for minimizing the build up of materials on valve components and thereby facilitating the reliability and repeatability of the valve operation" is not well taken.

Nowhere in the present claims is there a recitation of a "pressure relief valves *for minimizing the build up of materials on valve components and thereby facilitating the reliability and repeatability of the valve operation*" as argued.

Should such a recitation be included in the claims, it would be considered a statement of intended use bearing no patentable weight. Even if successively argued that such an intended use statement should bear patentable weight there is no further claim language distinguishing the claimed elements from those of Holicer.

The argument that "Holicer does not disclose that the valve member (54) separates from the seal surface (of valve seat 57) upon the application of a fluid pressure force on the valve member (54) that is greater than the spring (58) force to allow pressurized fluid to pass through the discharge opening (60) in the housing" is also not well taken.

The Examiner assumes that this allegation is made on the basis of there being no exacting written description of how the pressure relief valve of figure 5 operates.

However, the pressure relief valve of figure 5 could not logically work in any other manner consistent with the patent disclosure.

Fluid pressure within conduit 16 is channeled to an inlet face of the valve element 54 at resilient disc 56 via conduit 53a. Fluid pressure within conduit 53a, acts on the valve element inlet face on an area equivalent to the area of the conduit 53a. The resultant fluid pressure force acts on the valve element in opposition to a closing force generated by the spring 58 which acts on the opposite side of the valve element to maintain the valve closed. These two forces act in opposite directions on the valve element 54. When the force of fluid pressure, acting on the inlet side of valve element 54 is greater than the force of spring element 58, acting in the opposite direction, the valve element 54 will move in the opening direction, lifting the valve element 54 from the seat 57 and the associated seal surface thereon, thus opening the valve permitting the valve to "relieve" pressure as disclosed.

Applicants further comments merely rely of the alleged deficiency of Holicer and that Wahli fails to cure these "deficiencies". As note above, Holicer readily discloses the alleged "deficiencies".

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Rivell whose telephone number is (703) 308-2599. The examiner can normally be reached on Mon.-Thur. from 6:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on (703) 308-1272. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.

John Rivell

John Rivell
Primary Examiner
Art Unit 3753

j.r.